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ABSTRACT

This guide provides some basic statistical techniques that may be used in writing grant proposals, analyzing reports, and evaluating programs. Examples focus on rural Pennsylvania. The first section, Understanding Data, discusses definitions, codes, and data limitations. Definitions of Census Bureau geographic, demographic, housing, and socioeconomic terms are supplied. Commonly confused statistical terms such as estimates versus projections, mean versus median, percent versus percentile, and confidence interval and margin of error are defined. Although many agencies have their own identifying codes, two universally recognized codes are identified: Federal Information Processing System and North American Industry Classification System. Confidentiality and suppression limitations are discussed, as is the need for qualitative data. The second section, Working with Data, presents information on comparing variables and time periods. Ratios, percents, percent of total, and per capita can all be used to compare variables. The purpose and use of each are discussed and examples given. The same format is used to present how numerical change, percent change, and adjusting for inflation can be used to compare time periods. The third section, Gathering Data, explains how data from others can be made to fit with one's own data; consistency in software, units, and universe are discussed, as well as the importance of current information. Federal and Pennsylvania sources of data are presented. Two appendices define Pennsylvania local governments and discuss data quirks. (TD)

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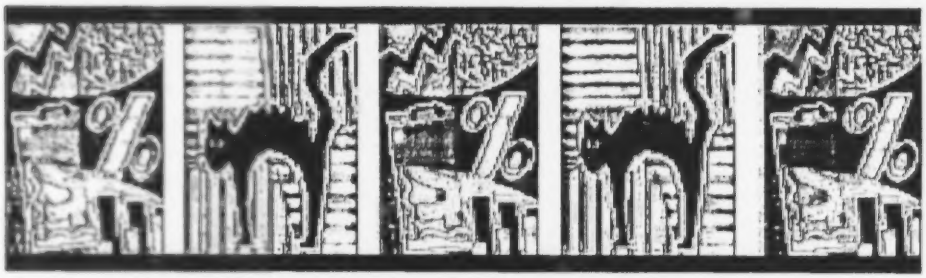
Stats for Scaredy-Cats

A How-To Guide for Rural Data Users



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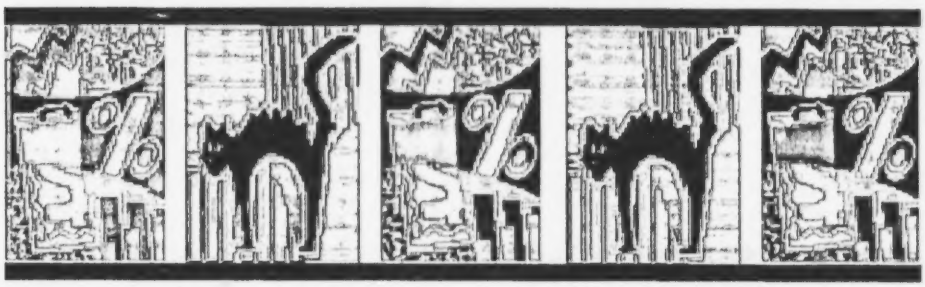
A How-To Guide for Rural Data Users



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For more information, contact the Center for Rural Pennsylvania at 200 North Third St., Suite 600, Harrisburg, PA 17101, telephone (717) 787-9555, fax (717) 772-3587, or visit our website at www.ruralpa.org.

Table of Contents

Introduction 4

Understanding Data 5
- Definitions 5
  - Geographic 5
  - Demographic, housing, and socio-economic 7
  - Statistical 8
- Codes 9
  - Geographic 9
  - Economic 9
- Data Limitations 10
  - Confidentiality/suppression 10
  - Qualitative information 10

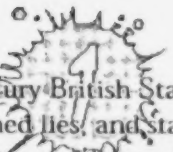
Working with Data 11
- Comparing variables 11
  - Ratios and percents 11
  - Percent of total 11
  - Per capita and other rates 11
- Comparing time periods 12
  - Numerical change 12
  - Percent change 13
  - Adjusting for inflation 13

Gathering Data 14
- Formats 14
- Software 14
- Units 14
- Universe 14
- Age of data 14

Sources 15

Appendix A – Pennsylvania Local Governments 16
Appendix B – Data Quirks 19

INTRODUCTION



There are three kinds of lies, according to 19th Century British Statesman and Prime Minister Benjamin Disraeli: lies, damned lies, and statistics.

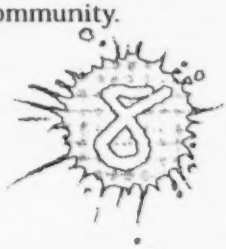
While some may wholeheartedly agree with the statesman's comment, others counter that statistics are quite useful. After all, statistics help us to describe our communities, compare our community with others and identify emerging trends.

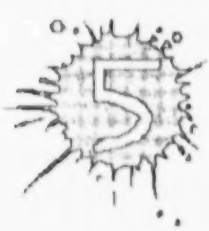
The animosity some feel toward statistics, however, may be attributed to a misunderstanding of how the numbers are generated and applied. In this case, it may be helpful to think of statistics as ingredients in a cake. The ingredients, or data, which describe a specific phenomenon, may be the number of people living in a municipality, the number of houses in a community that are renter-occupied, or the number of people living below the poverty threshold. While these numbers describe a specific fact, they can be combined to create a better picture of a community as a whole. Just as we combine a variety of ingredients to make a cake, we need to combine a variety of ingredients (data) to produce a complete picture of a community.

Most grant writers, local officials, and other community analysts, for example, use a variety of indicators to develop a complete look at their communities' needs and opportunities. Some of the most common variables used are population, housing, income, education, and labor force. These data ususally come from various government and private sources.

If you are looking to use data and statistics to write a grant, analyze your community or help others to do so, this guide may be helpful. In it, we are providing some basic statistical techniques that may be used in writing grant proposals, analyzing reports, and evaluating programs.

The guide has three main sections: understanding data, working with data and gathering data. While it may not answer all your statistical questions, this guide will help you to learn more about data and how to use them to analyze conditions within your community.





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UNDERSTANDING DATA

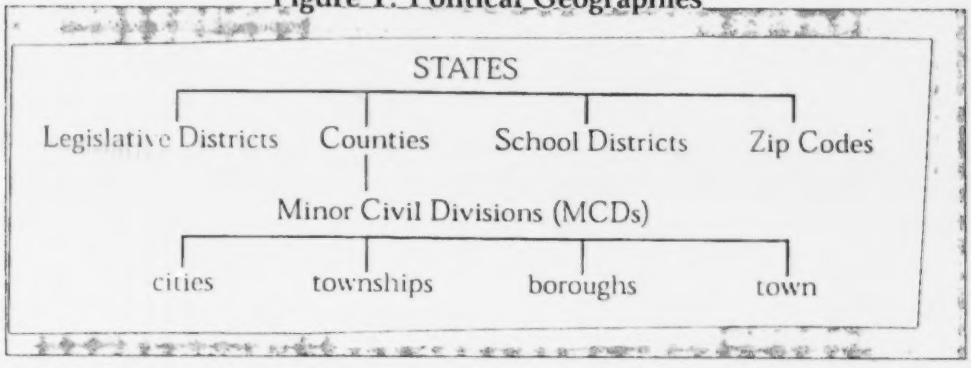
DEFINITIONS

Geographic

Some geographies are basic and easy to understand such as nation, state, and county. Others get more complex. The Census Bureau has a standard format of geographies that is universal and widely used.

One side of this format is **political boundaries**. States are divided into subdivisions normally called "counties." Counties are divided into Minor Civil Divisions (MCDs), which are municipalities in Pennsylvania. The commonwealth's municipalities include cities, boroughs, townships, and one town. All areas in Pennsylvania are part of one and only one of these entities. Other political boundaries include national and state legislative districts, school districts, and zip codes. Although not all of these boundaries are politically driven, they are in this category because they were not artificially created for statistical purposes. (See Figure 1.)

Figure 1: Political Geographies



The other side of Census geographies is **statistical**. Here, counties are divided into tracts, which are based on population size. Census tracts generally have a population size between 1,500 and 8,000 with an optimum size of 4,000. Tracts do not necessarily mesh with political boundaries and may cover more than one MCD, or one MCD may include multiple tracts. Tracts are further divided into blocks, the smallest level of geography, which are also based on population. Blocks can be aggregated into block groups, which generally contain between 600 and 3,000 people with an optimum size of 1,500 people. (See Figure 2 on page 6.)

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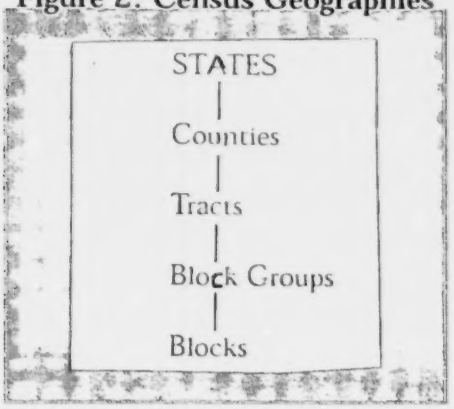
Figure 2: Census Geographies



Above the county level are Metropolitan Statistical Areas (MSA), which are groups of counties with a central city or cities that are tied by work commuting patterns. Not all counties are within MSAs.

Census data are also available for Census Designated Places (CDPs), which are not actual municipalities but are known by local residents to encompass a certain area that has specific characteristics. An example of a CDP in Pennsylvania is Hershey in Dauphin County. The place called "Hershey" is actually a part of Derry Township, but is known to local and probably not so local residents as "Hershey."

Data from sources other than the Census Bureau's Decennial Census are usually only available at national, state, MSA, and county levels.

Urban and rural definitions have also changed since the 1990 census.

For Census 2000, the Census Bureau classifies urban as all territory, population, and housing units located within an urbanized area (UA) or a smaller urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territories, which consist of the following:

- Core census block groups or blocks that have a population density of at least 1,000 people per square mile; and
- Surrounding census blocks that have an overall density of at least 500 people per square mile.

***Note**: Under certain conditions, less densely settled territory may be part of each UA or UC.*

Rural consists of all territory, population, and housing units located outside of UAs and UCs. Geographic entities, such as census tracts, counties, metropolitan areas, and the area outside metropolitan areas, often contain both urban and rural territory, population, and housing units.

For rural and urban comparisons of data that do not come from the Decennial Census, the Center for Rural Pennsylvania has used this method: All counties or municipalities that are predominantly rural (more than 50 percent according to the Census) are designated *rural*, and those predominantly urban are called *urban*. Using this measure and the most recent data (the 1990 Decennial Census as of the printing of this guide), 42 of the state's 67 counties are predominantly rural. ***Note**: This method may change in late 2002 in response to implications of the new definitions from the 2000 Census.*

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Some national sources use a metro/non-metro definition. These sources classify counties within MSAs as *urban* and those not in MSAs as *rural*. This method provides a different and not as accurate a picture of Pennsylvania because MSAs are based on commuting patterns and not just population. The example of Wyoming County is revealing. While the county is classified as metro (in an MSA) because many residents commute to nearby cities, 100 percent of the county's population is rural.

Demographic, housing, and socio-economic

There are a number of data-related terms that are commonly confused. On the demographic side, these terms include household and family, and race, ethnicity, and ancestry. Confusing economic terms include workforce and labor force, and occupation and industry.

Following is a list of these and other data-related terms and their definitions.

- Household – A person or group of persons living in a housing unit. Households equal the count of occupied housing units in a traditional Census.
- Family – A householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption.
- Race – The Decennial Census "race" categories are the official categories used in the collection and tabulation of federal statistics and, for this reason, are used by many other agencies as well. The six main categories are: White, Black or African American, Asian, Native Hawaiian and other Pacific Islander, American Indian and Alaska Native, and other. Some of these, such as Asian, are broken down further into detailed races. In Census 2000, respondents were permitted to select as many races to describe themselves as they saw applicable, which is why a "two or more" race category is often used.
- Ethnicity – The Census also takes into consideration whether a person is of Hispanic or Latino origin. This characteristic is considered an ethnicity, not a race, by the Census Bureau. Consequently, a person may be Black Hispanic, White Hispanic, Asian Hispanic, etc.
- Ancestry – This identifies the country(ies) from which the respondent's ancestors came. It is also unrelated to race.
- Generational cohorts – These are groups defined by the period in which people were born. For example, those born from 1946 to 1964 are typically called "Baby Boomers"; those born from 1965 to 1976 are "Generation Xers"; and those born from 1977 to 1994 are "Generation Y."
- Housing tenure – Whether a home is owned or rented.

- Income – Among others, the many types of income include personal, family, and household as well as wage and salary, and unearned income from such sources as rent payments, dividends, and Social Security.
- Poverty – Someone living in poverty lives in a household where income is below the poverty threshold. The threshold changes annually and is dependent primarily on family size.
- Civilian labor force – Non-military persons, age 16 years old and older, who are working or actively seeking work.
- Unemployment rate – The percent of the civilian labor force that is not working but is actively seeking employment.
- Workforce – The sum of all employees.
- Occupation – What someone does on the job as in teacher, truck driver, or farmer.
- Industry – The field (usually classified into federally determined categories) in which a person works, such as educational services, transportation and warehousing, or agriculture.

Statistical

Many statistical terms are also often confused with one another. The following short list provides some basic definitions for commonly confused terms.

- Estimates versus projections – Estimates are calculations of what occurred at a certain point in time based upon known factors of that time. Projections are calculations of what will be in the future based on models of what has happened in the past.
- Mean versus median – The mean is the arithmetic average of all of the numbers. The mean is calculated by adding all of the values together and then dividing by the number of cases. The median is the middle point in a distribution; half of the cases are above and half are below this number. This measure is often used when a few very large or very small cases could pull the mean in a deceiving direction.
- Percent versus percentile – Percent is a figure that compares a number to a hypothetical total of 100. If 20 out of every 100 widgets are blue, then 20 percent are blue, no matter how many there really are. See the "Working with Data" section for how to calculate percent. A percentile is a point on a scale from 1 to 100 for comparison to others. If a baby is in the 80th percentile for weight, 80 percent of all babies weigh less while 20 percent weigh more. If a family is in the 45th percentile for income, 45 percent of families make less and 55 percent make more.
- Confidence interval and margin of error – When applying statistics that were gathered using a sample to an entire population, there is room for inaccuracy. Statistical methods allow us to determine the approximate size

of the potential inaccuracies, and this is represented by the margin of error. The size of the sample is used to determine how sure we can be that the mistakes will be within that margin. This is expressed by the confidence interval. An example may look like this: *The estimate of 50 has a margin of error of 3 with 95 percent confidence*. This would mean that we are 95 percent sure that the true value is between 47 and 53.

CODES

Codes are often used as numerical representations for such things as places and industries. Many agencies have developed their own identifying codes, but codes can still be used to match data sets from various sources.

Geographic

FIPS (Federal Information Processing System) codes are useful because they are universally recognized. Pennsylvania's state FIPS code is 42. Counties are coded alphabetically using odd numbers. For example, Adams County is 001 or 1 and York County is 133. Each municipality also has a unique ID.

Some Pennsylvania state agencies, however, use their own codes, which may get even more confusing. For counties, some agencies use consecutive numbers beginning with one, in which case Adams County is still 1, but York County is 67. Municipal codes vary among agencies.

The chart below offers an example of the different codes used for Abbottstown Borough, Adams County.

Economic

Businesses are classified into industries so that economic data may be compiled. Until recently, the format was Standard Industrial Classification (SIC) codes comprised of 10 industries.

With the North American Free Trade Agreement (NAFTA) came the drafting of the new North American Industry Classification System (NAICS) codes. NAICS codes not only make industry classifications universal between Canada, the United States, and Mexico, but they also updated these classifications to reflect the infor-

Municipal Codes Used For Abbottstown Borough, Adams County

Agency	Agency Code
Complete FIPS (state, county, municipal)	4200100116
FIPS	00116
Census	005 (no longer used)
PA Department of Community and Economic Development	01003
PA Department of Transportation (PennDOT)	01401

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New NAICS sectors and codes

- 11 – Agriculture, Forestry, Fishing, and Hunting
- 21 – Mining
- 22 – Utilities
- 23 – Construction
- 31 - 33 – Manufacturing
- 42 – Wholesale Trade
- 44 - 45 – Retail Trade
- 48 - 49 – Transportation and Warehousing
- 51 – Information
- 52 – Finance and Insurance
- 53 – Real Estate and Rental and Leasing
- 54 – Professional, Scientific and Technical Services
- 55 – Management of Companies and Enterprises
- 56 – Administrative and Support, and Waste Management and Remediation Services
- 61 – Educational Services
- 62 – Health Care and Social Assistance
- 71 – Arts, Entertainment and Recreation
- 72 – Accommodation and Food Services
- 81 – Other Services (except Public Administration)
- 92 – Public Administration

Note: Crosswalks are available at http://www.census.gov/epcd/www/naicstab.htm to make approximate comparisons between SIC data and current NAICS data.

mation and service era. The 20 NAICS sectors and their codes are listed at left.

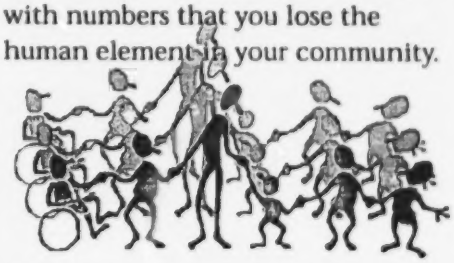
DATA LIMITATIONS

Confidentiality/suppression

Many agencies that collect data have to agree to keep individual records confidential. If they didn't, no one would want to fill out the surveys. For that reason, data on small areas are often suppressed to maintain confidentiality for respondents. This is clearly the case for Census data at the block level and for many county level industry statistics.

Qualitative information

Some factors, such as quality of life, are not easily measurable by statistics. These may require some contextual information. This is called qualitative rather than quantitative (numerical) data. Numbers may be useful in backing up a story, but often the story is what is truly meaningful. Be sure not to become so overly infatuated with numbers that you lose the human element in your community.



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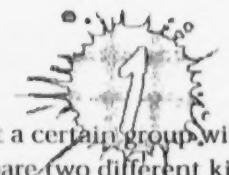
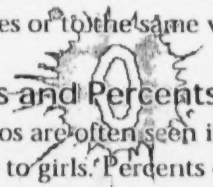
WORKING WITH DATA

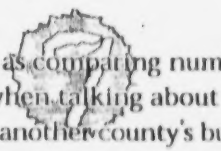
COMPARING VARIABLES



We frequently want to compare information about a certain group with the same information from another group or to compare two different kinds of information about the same group. Data can be compared to other variables or to the same variable across geographies or across time.

Ratios and Percents



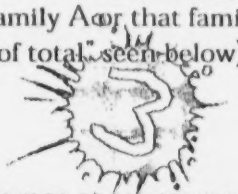


Ratios are often seen in test scores or such things as comparing numbers of boys to girls. Percents of another figure are used when talking about something like your county's budget as it compares to another county's budget.

Purpose: To compare two groups in terms of each other.

How: To find out how much bigger the larger number is, subtract the smaller number from the larger number and divide the difference by the smaller. Then, multiply that result by 100 to get a percent. Make sure to do the subtraction first. To find out what portion the smaller represents of the larger, use the methodology as in "percent of total" below.

Example: Family A has 4 members while family B has 6, so family B is 1.5 times the size of family A [ratio] or 50 percent larger [percent]. 6/4 = 1.5 and (6-4)/4 = .50 x 100 = 50 percent. With percentages, we can say that family B is 50 percent larger than family A or that family A is 66 percent the size of family B (as in "percent of total" seen below), depending on what we are trying to show.



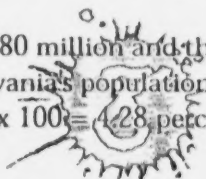
Percent of total

Percent of total is commonly used to discuss race or age groups as part of the total population.

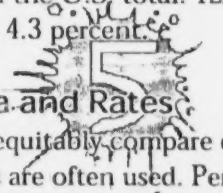
Purpose: To demonstrate the share one group holds of the larger group.

How: Divide the smaller number by the larger and then multiply the result by 100 to get a percent.

Example: The population of the U.S. is 280 million and the population of Pennsylvania is 12 million. So Pennsylvania's population is 4.3 percent of the U.S. total. 12/280 = .0428 x 100 = 4.28 percent, which rounds to 4.3 percent.



Per Capita and Rates



To more equitably compare data sets of different sizes, per capita comparisons are often used. Per capita, or per person, measures are commonly used for crime, birth and death, and high school dropout rates.

Purpose: To compare data from one region to data from a neighboring region, the state or the nation, and to make the numbers meaningful and

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comparable, per capita (literally "per head" in Latin) is a good measure. For instance, saying that the United States has 100 million cars while Pennsylvania has 10 million does not tell us much because we would expect the nation to have more cars. However, the data makes more sense if we measure car ownership on a per family basis. This method is also more meaningful when comparing variables instead of places, such as the rate of bicycles per person compared to rate of cars per person in a certain place.

How: Divide the value of the variable of comparison by the total population, then multiply by the unit decided upon to represent the rate. This rate unit is usually a round number and is often 1,000, 10,000 or 100,000. Do this for each place/variable you want to compare.

Example Per Capita: 367 people live in Anytown, PA. There are 416 cars registered in the town. To determine the number of cars for each person in the town, divide the number of cars by the number of people or 416/367 for 1.1 cars per capita.

Example Rate: Let's say we want to compare cars in Anytown to cars in Anycity. Anycity has 10,000 people and 550 cars (many residents use public transportation). We decide to use a rate of cars per 1,000 so the numbers are nice and small for our table. So, Anytown has 1,134 cars per 1,000 population [(416/367)*1,000] while Anycity has 55 cars per 1,000 population [(550/10,000)*1,000]. It does not matter that Anytown does not have 1,000 residents - we are only using a comparison rate based on a common unit.

COMPARING TIME PERIODS

Data can also be compared to other variables or to the same variable across time. In this section, we focus on two basic ways to compare data over time and also give added attention to dollar figures.

Numerical Change

When looking at an increase in traffic or business starts, we may be interested in a straight numerical difference between two periods.

Purpose: To determine the difference between the new number and the old.

How: Subtract the old figure from the new.

Example: There were 200 car accidents in Anytown, PA in the year 2000 and 210 the year before, 1999. The numerical change was 200 minus 210 or -10. (New – original = numerical change.)

Percent Change

Depending on circumstances, a percent change can be much more useful. This is often the case with population or housing units.

Purpose: To determine the rate of change between two points in time. This calculation allows for meaningful comparisons across communities whose numerical change may be very different.

How: Subtract the more current year data from the earlier and divide by the earlier. Multiply this by 100 to get the percent. Again, be sure to subtract first.

Example: (200-210)/200 x 100 = -5 percent. [(New – original) / original x 100 = percent change.]

Adjusting for Inflation

In examining a change in income, revenues and expenditures, or sales over time, adjusting for inflation is essential.

Purpose: When comparing monetary values over time, it is important to adjust for inflation so that the figures have the same meaning in current terms. Because currency did not purchase the same basket of goods both years, the figures are not comparable. This is true for both numerical and percent changes.

How: Multiply the older figure by the inflation index, which is based on the change in Consumer Price Index (CPI) between the two periods. The CPI multiplier is located at http://www.bls.gov/cpi/#tables. Select "Inflation Calculator" under "Get Detailed Statistics." The CPI is also available by contacting the Center for Rural Pennsylvania.

Example: Something that cost $75 in 1990 may have cost $100 in 2000. We multiply $75 by 1.318 (the inflation rate between those two points in time) to understand what it is worth in 2000 dollars ($98.85). So, although the change was $25 at first glance, the "real" (adjusted) change was just $1.15. (Original cost x inflation rate = "real" original cost. Compare "real" original cost to new cost.)

GATHERING DATA

FORMATS

When collecting data from others, it is important that they fit together with what you have. This pertains to software, units, universe, and dates.

SOFTWARE

Common formats for numerical data are spreadsheet, database, or simple text. Spreadsheet applications such as Excel, 1-2-3, and Quattro Pro and databases such as Access, Fox Pro, and Paradox are useful for storing, changing, adding to, and rearranging data. Text format takes up the smallest computer space and is often used when sharing data. Text is easily brought into any of the more user-friendly formats mentioned above.

UNITS

It is critical to be sure that units of measurement are comparable in multiple data sets. For example, it's not meaningful to compare acres to square miles or dollars in 2001 to dollars in 1981 (see adjusting for inflation). Some data sets need to be converted before they can be combined or compared. A comprehensive website for calculating unit conversions can be found at www.onlineconversion.com.

UNIVERSE

The universe is the group for which the data were collected. This should also be consistent for comparisons to be meaningful. It is important to be aware of the universe for each set of data. Some common universes to be careful with are households vs. persons vs. families, and total population vs. age 65 and older vs. children.

AGE OF DATA

It is always a good idea to have the most current information available, but it is also important to have the most accurate. This sometimes involves a decision between using older official numbers and current estimates. There is no cut and dried answer as to which is best.

Often, the only measure available will be from the Decennial Census. However, this data becomes quite outdated by the end of the decade. For something official, such as information for a grant application, stick with the Census. For individual planning purposes, sometimes updated "guesses" based on data are more useful.

Make sure all of the pieces you are presenting represent the same time period, even if some data must be older than the most current available to do so. Using income from one time period and poverty from another could show a very distorted picture.

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SOURCES

The Center for Rural Pennsylvania is always a great place to start. The Center maintains a comprehensive database of national, state, county, and municipal information and has access through its affiliate status to all available Census Bureau data. If you are looking for information the Center does not have in-house, resources are on hand to acquire it for you from federal, state, or local government and private data sources. Contact us at:

The Center for Rural Pennsylvania
200 North Third Street, Suite 600
Harrisburg, PA 17101
Phone: (717) 787-9555
Fax: (717) 772-3587
Email: info@ruralpa.org
www.ruralpa.org

OTHER SOURCES

State:
Department of Community & Economic Development
Department of Education
Department of Health
Department of Labor and Industry
Department of Public Welfare
Department of Transportation
Phone: (800) 932-0784*
www.state.pa.us

** Note: The toll-free number listed above is for the Commonwealth Information Center (CIC). The CIC answers questions about Pennsylvania state government and has telephone numbers for the state departments listed above.*

The Pennsylvania State Library
Phone: (717) 783-5950
www.statelibrary.state.pa.us

The Pennsylvania State Data Center
Phone: (717) 948-6336
http://pasdc.hbg.psu.edu

Federal:
U.S. Census Bureau
Phone: (301) 457-4608
www.census.gov

U.S. Bureau of Labor Statistics
Phone: (202) 691-5200
www.bls.gov

U.S. Bureau of Economic Analysis
Phone: (202) 606-9900
www.bea.doc.gov

U.S. Department of Agriculture
National Agricultural Statistics Service (NASS)
Phone: (800) 727-9540 or (202) 720-3878
www.nass.usda.gov

Appendix A
Pennsylvania Local Governments

Just how many local governments are there in Pennsylvania? You may find different answers to that question depending on which person or entity you ask. In this section, we'll explain how the Center for Rural Pennsylvania defines local government.

First, the definition of local government for this document: local is any government entity below the state level, including counties, municipalities, and school districts.

Authorities are not included since they are a special kind of local unit set up only to perform a special service and are not general government entities.

The county part is easy, sort of. There are 67 counties, a number that dates back to 1878 when Lackawanna County was created from part of Luzerne County. Philadelphia is unique because the county and city are the same jurisdiction, so there is no county government. Therefore, Pennsylvania has 66 county governments.

School districts are also somewhat easy. The commonwealth has 501 school districts. We often see information on just 500, however, since one, Bryn Athyn in Montgomery County, has no enrollment.

Now for the really confusing stuff – Pennsylvania municipalities. A municipality in Pennsylvania is an incorporated entity. There are just four types in the state: 57 cities, 961 boroughs, 1,548 townships, and one town. Cities and townships are broken into classes based on population and the type of municipal charter their voters have adopted. There is no land in the commonwealth that does not fall into one of these 2,567 municipalities.

Bloomsburg, Columbia County, is the only town in Pennsylvania, incorporated as a town through a special act by the General Assembly in 1870.

Counting municipalities

Bethlehem City and 10 boroughs cross county lines. This makes some data collection confusing since each place is sometimes found twice, especially when information is organized by county. The municipalities that cross county lines are listed at the top of page 17.

Municipalities Located in More Than One County

Municipality	In this County	And this County
Adamstown Borough	Lancaster	Berks
Bethlehem City	Northampton	Lehigh
Ellwood City Borough	Lawrence	Beaver
Emlenton Borough	Venango	Clarion
Falls Creek Borough	Jefferson	Clearfield
McDonald Borough	Washington	Allegheny
Seven Springs Borough	Somerset	Fayette
Shippensburg Borough	Cumberland	Franklin
Telford Borough	Montgomery	Bucks
Trafford Borough	Westmoreland	Allegheny
Tunnelhill Borough	Cambria	Blair

Plus, the Census Bureau places Ashland Borough in Columbia and Schuylkill counties although it is really only in Schuylkill. The Census recognized and corrected this problem in the 1990s but it showed up again in 2000 Census figures.

A second but similar issue is that municipalities sometimes merge together or split apart, so the total number is not constant. Below is a list of recent boundary changes of which you should be aware.

Municipality	County	Date
• New Morgan Borough	Berks	5/10/1988
incorporation from parts of Caernarven and Robeson Townships		
• Temple Borough	Berks	1/1/1999
disincorporation, area reverted to Muhlenburg Township		
• Northern Cambria Borough	Cambria	1/1/2000
created by merger of Barnesboro and Spangler Boroughs		
• West Fairview Borough	Cumberland	1/1/1998
disincorporation, area reverted to East Pennsboro Township		
• Benzinger Township	Elk	1/1/1990
disincorporation, annexed by St. Mary's City		
• Fairview Borough	Erie	1/1/1998
disincorporation, area reverted to Fairview Township		
• Jacksonville Borough	Indiana	1/1/1993
disincorporation, area reverted to Black Lick Township		
• Bear Creek Village Borough	Luzerne	8/25/1993
new incorporation from part of Bear Creek Township		
• Elkland Township	Tioga	1/1/1992
merged into Nelson Township		

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Appendix A — Pennsylvania Local Governments

(continued from page 19)

Another issue is name changes. The following changes happened in the 1990s.

Municipality	County	Date
Jefferson Borough > Jefferson Hills Borough	Allegheny	6/20/1995
Pavia Township > Union Township	Bedford	6/10/1993
Birmingham Township > Chadds Ford Township	Delaware	12/1/1996
Lehigh Township > Thornhurst Township	Lackawanna	1/1/1996

Some agencies still report 56 cities because Latrobe in Westmoreland County, formerly a borough, became a city in 1998. The municipal statistics collected by the state Department of Community and Economic Development's Center for Local Government Services keeps Latrobe in the borough category since it is a city only by homerule declaration and not by population criteria.

Lastly, Cold Spring Township in Lebanon County is a municipality (an incorporated township) although it does not have its own government.

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Appendix B
Data Quirks

There are a few important things to watch out for when using statistical data to ensure that what you say about the numbers presents a truly accurate picture.

Very small populations

When a community has a very small population, a few cases can drastically change statistics about the community. For instance, when looking at changes over time in Pennsylvania counties, those counties with the smallest populations could register an enormous percent change that actually reflects just a few families. An example is the change in the Black population in Cameron County, which increased by 200 percent from 1990 to 2000. That change, however, represented only an additional 14 people.

Definition changes

Changes in the definition of a variable will certainly make data about the variable not comparable over time. Between the last two Economic Censuses, the definition of "farm" was changed to include some types that were not previously included (such as Christmas tree farms). This change could be deceptive when looking at the change in the total number of farms.

Another change is the definition of urban and rural. In 1990, the Census Bureau defined urban as all territory, population, and housing units in urbanized areas and in *places* of 2,500 or more persons outside urbanized areas. Territory, population, and housing units not classified as urban constitute rural. An urbanized area (UA) comprised one or more "central place" and the adjacent densely settled surrounding territory ("urban fringe") that together have a minimum of 50,000 persons.

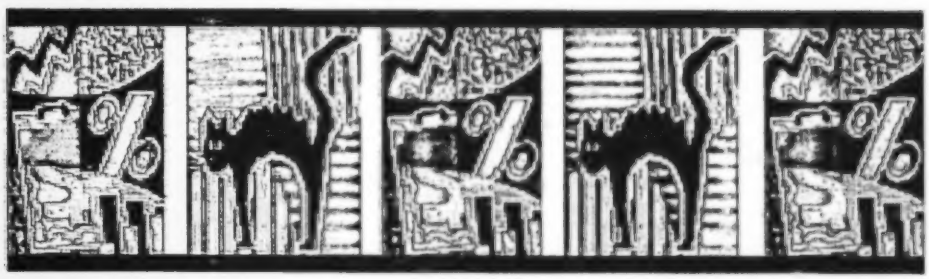
The Census 2000 definition uses Urban Clusters (see the Definition section on page 5) rather than places to determine the total urban population outside of UAs. With the creation of UCs, place boundaries are "invisible" when creating and classifying the cores of densely settled population agglomerations.

Refer to http://www.census.gov/geo/www/ua/ua_2k.html or call the Center for Rural Pennsylvania for more information.

Appendix B – Data Quirks *(continued from page 21)*

Group quarters

"Group quarters" is the Census term for residences that are not households but are home to groups of non-related individuals. The population in group quarters, such as prisons, nursing homes, and college dorms, can change the picture of a community. These populations can make the community look older, younger, more racially diverse etc., than it would be without the group quarters residence.



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